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RAW SEQUENCE LISTING DATE: 08/02/2004
PATENT APPLICATION: **US/10/769,695** TIME: 14:58:12

Input Set : **A:\Knockout-USPAP.ST25.txt**
Output Set: **N:\CRF4\08022004\J769695.raw**

```
  3 <110> APPLICANT: Palatin Technologies, Inc.
  4       Sharma, Shubh
  5       Shi, Yi-Qun
  6       Bastos, Margarita
  7       Rajpurohit, Ramesh
  8       Cai, Hui-Zhi
 10 <120> TITLE OF INVENTION: Knockout Identification of Target-Specific Sites in Peptides
 12 <130> FILE REFERENCE: 70025-US04-129
 14 <140> CURRENT APPLICATION NUMBER: 10/769,695
C--> 15 <141> CURRENT FILING DATE: 2004-01-30
 17 <150> PRIOR APPLICATION NUMBER: US 60/444,129
 18 <151> PRIOR FILING DATE: 2003-01-31
 20 <160> NUMBER OF SEQ ID NOS: 65
 22 <170> SOFTWARE: PatentIn version 3.2
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 13
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Artificial
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: alpha-MSH analog specific for melanocortin receptors
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 35 1               5                   10
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 39 <211> LENGTH: 14
 40 <212> TYPE: PRT
 41 <213> ORGANISM: Artificial
 43 <220> FEATURE:
 44 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
 47 <220> FEATURE:
 48 <221> NAME/KEY: MISC_FEATURE
 49 <222> LOCATION: (4)..(4)
 50 <223> OTHER INFORMATION: Norleucine
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 55 1               5                   10
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 59 <211> LENGTH: 14
 60 <212> TYPE: PRT
 61 <213> ORGANISM: Artificial
 63 <220> FEATURE:
 64 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
 67 <220> FEATURE:
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     69 <222> LOCATION: (4)..(4)
     70 <223> OTHER INFORMATION: Norleucine
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     88 <221> NAME/KEY: misc_feature
     89 <222> LOCATION: (4)..(4)
     90 <223> OTHER INFORMATION: Norleucine
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     95 1               5                   10
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    101 <213> ORGANISM: Artificial
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    110 <223> OTHER INFORMATION: Norleucine
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    115 1               5                   10
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    120 <212> TYPE: PRT
    121 <213> ORGANISM: Artificial
    123 <220> FEATURE:
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    127 <220> FEATURE:
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    129 <222> LOCATION: (4)..(4)
    130 <223> OTHER INFORMATION: Norleucine
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    135 1               5                   10
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    139 <211> LENGTH: 14
    140 <212> TYPE: PRT
    141 <213> ORGANISM: Artificial
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     150 <223> OTHER INFORMATION: Norleucine
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     170 <223> OTHER INFORMATION: Norleucine
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     188 <221> NAME/KEY: misc_feature
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     190 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
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     208 <221> NAME/KEY: MISC_FEATURE
     209 <222> LOCATION: (4)..(4)
     210 <223> OTHER INFORMATION: Norleucine
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Input Set : **A:\Knockout-USPAP.ST25.txt**
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221 <213> ORGANISM: Artificial
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224 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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228 <221> NAME/KEY: MISC_FEATURE
229 <222> LOCATION: (4)..(4)
230 <223> OTHER INFORMATION: Norleucine
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235 1 5 10
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239 <211> LENGTH: 14
240 <212> TYPE: PRT
241 <213> ORGANISM: Artificial
243 <220> FEATURE:
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247 <220> FEATURE:
248 <221> NAME/KEY: MISC_FEATURE
249 <222> LOCATION: (5)..(5)
250 <223> OTHER INFORMATION: Norleucine
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255 1 5 10
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260 <212> TYPE: PRT
261 <213> ORGANISM: Artificial
263 <220> FEATURE:
264 <223> OTHER INFORMATION: metallopeptide derived from alpha-MSH analog
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268 <221> NAME/KEY: MISC_FEATURE
269 <222> LOCATION: (5)..(5)
270 <223> OTHER INFORMATION: Norleucine
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275 1 5 10
278 <210> SEQ ID NO: 14
279 <211> LENGTH: 11
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283 <220> FEATURE:
284 <223> OTHER INFORMATION: Nle-3 substituted gamma-MSH analog for melanocortin receptors
287 <220> FEATURE:
288 <221> NAME/KEY: MISC_FEATURE
289 <222> LOCATION: (3)..(3)
290 <223> OTHER INFORMATION: Norleucine
292 <400> SEQUENCE: 14

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Input Set : **A:\Knockout-USPAP.ST25.txt**
Output Set: **N:\CRF4\08022004\J769695.raw**

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295 1 5 10
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304 <223> OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH analog
307 <220> FEATURE:
308 <221> NAME/KEY: MISC_FEATURE
309 <222> LOCATION: (3)..(3)
310 <223> OTHER INFORMATION: Norleucine
312 <400> SEQUENCE: 15
W--> 314 Tyr Val Xaa Gly His Phe Arg Trp Asp Arg Phe Cys
315 1 5 10
318 <210> SEQ ID NO: 16
319 <211> LENGTH: 12
320 <212> TYPE: PRT
321 <213> ORGANISM: Artificial
323 <220> FEATURE:
324 <223> OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH analog
327 <220> FEATURE:
328 <221> NAME/KEY: MISC_FEATURE
329 <222> LOCATION: (3)..(3)
330 <223> OTHER INFORMATION: Norleucine
332 <400> SEQUENCE: 16
W--> 334 Tyr Val Xaa Gly His Phe Arg Trp Asp Arg Cys Phe
335 1 5 10
338 <210> SEQ ID NO: 17
339 <211> LENGTH: 12
340 <212> TYPE: PRT
341 <213> ORGANISM: Artificial
343 <220> FEATURE:
344 <223> OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH analog
347 <220> FEATURE:
348 <221> NAME/KEY: MISC_FEATURE
349 <222> LOCATION: (3)..(3)
350 <223> OTHER INFORMATION: Norleucine
352 <400> SEQUENCE: 17
W--> 354 Tyr Val Xaa Gly His Phe Arg Trp Asp Cys Arg Phe
355 1 5 10
358 <210> SEQ ID NO: 18
359 <211> LENGTH: 12
360 <212> TYPE: PRT
361 <213> ORGANISM: Artificial
363 <220> FEATURE:
364 <223> OTHER INFORMATION: metallopeptide derived from Nle-3 substituted gamma-MSH analog
367 <220> FEATURE:
368 <221> NAME/KEY: MISC_FEATURE

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/02/2004
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Input Set : **A:\Knockout-USPAP.ST25.txt**
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 4
Seq#:3; Xaa Pos. 4
Seq#:4; Xaa Pos. 4
Seq#:5; Xaa Pos. 4
Seq#:6; Xaa Pos. 4
Seq#:7; Xaa Pos. 4
Seq#:8; Xaa Pos. 4
Seq#:9; Xaa Pos. 4
Seq#:10; Xaa Pos. 4
Seq#:11; Xaa Pos. 4
Seq#:12; Xaa Pos. 5
Seq#:13; Xaa Pos. 5
Seq#:14; Xaa Pos. 3
Seq#:15; Xaa Pos. 3
Seq#:16; Xaa Pos. 3
Seq#:17; Xaa Pos. 3
Seq#:18; Xaa Pos. 3
Seq#:19; Xaa Pos. 3
Seq#:20; Xaa Pos. 3
Seq#:21; Xaa Pos. 3
Seq#:22; Xaa Pos. 3
Seq#:23; Xaa Pos. 3
Seq#:24; Xaa Pos. 4
Seq#:25; Xaa Pos. 1
Seq#:26; Xaa Pos. 1,14
Seq#:27; Xaa Pos. 1,15
Seq#:28; Xaa Pos. 1,15
Seq#:29; Xaa Pos. 1,15
Seq#:30; Xaa Pos. 1,15
Seq#:31; Xaa Pos. 1,15
Seq#:32; Xaa Pos. 1,15
Seq#:33; Xaa Pos. 1,15
Seq#:34; Xaa Pos. 1,15
Seq#:35; Xaa Pos. 1,15
Seq#:36; Xaa Pos. 1,15
Seq#:37; Xaa Pos. 1,15
Seq#:38; Xaa Pos. 15
Seq#:40; Xaa Pos. 1
Seq#:41; Xaa Pos. 1,14
Seq#:42; Xaa Pos. 1,14
Seq#:43; Xaa Pos. 1,14
Seq#:44; Xaa Pos. 1,14
Seq#:45; Xaa Pos. 1,14
Seq#:46; Xaa Pos. 1,14

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Input Set : **A:\Knockout-USPAP.ST25.txt**
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Seq#:47; Xaa Pos. 1,14
Seq#:48; Xaa Pos. 1,14
Seq#:49; Xaa Pos. 1,14
Seq#:50; Xaa Pos. 1,14
Seq#:51; Xaa Pos. 14
Seq#:65; Xaa Pos. 3

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65

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Input Set : **A:\Knockout-USPAP.ST25.txt**
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L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:434 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:589 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:714 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:839 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:873 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:923 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:948 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:973 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:998 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:1023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1048 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:1098 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0

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L:1123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:1143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1346 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0